



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
[www.uspto.gov](http://www.uspto.gov)

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/717,862	11/18/2003	Scott J. Derner	303.767US2	9477
21186	7590	03/17/2004	EXAMINER	
SCHWEGMAN, LUNDBERG, WOESSNER & KLUTH, P.A. P.O. BOX 2938 MINNEAPOLIS, MN 55402			TRAN, MICHAEL THANH	
			ART UNIT	PAPER NUMBER
			2818	

DATE MAILED: 03/17/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No.	Applicant(s)
	10/717,862	DERNER ET AL.
	Examiner	Art Unit
	Michael T Tran	2818

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) Responsive to communication(s) filed on 18 November 2003.  
 2a) This action is FINAL.                    2b) This action is non-final.  
 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) Claim(s) 4-40 is/are pending in the application.  
 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
 5) Claim(s) 4,5,7-24 and 32-40 is/are allowed.  
 6) Claim(s) 25 is/are rejected.  
 7) Claim(s) 6 and 26-31 is/are objected to.  
 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) The specification is objected to by the Examiner.  
 10) The drawing(s) filed on \_\_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.  
     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
 a) All    b) Some \* c) None of:  
 1. Certified copies of the priority documents have been received.  
 2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- 1) Notice of References Cited (PTO-892)  
 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)  
 3) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
     Paper No(s)/Mail Date 1103.
- 4) Interview Summary (PTO-413)  
     Paper No(s)/Mail Date. \_\_\_\_\_.  
 5) Notice of Informal Patent Application (PTO-152)  
 6) Other: \_\_\_\_\_.

## DETAILED ACTION

1. In response to the Communications dated November 18, 2003, claims 4-40 are active in this application as a result of the cancellation of claims 1-3.

### ***Information Disclosure Statement***

2. The information disclosure statement filed December 8, 2003 has been considered.

It is noted that there was another "IDS" communication dated November 18, 2003, stating that there were references that were previously filed in the parent case 09/988,988. The communication further stated that the examiner should initial the 1449 and return to applicant, however, there were no 1449 submitted along with the IDS communication.

### ***Claim Objections***

3. Claims 6 and 26-31 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The dependency of claim 6 should be changed. It is now depending on itself.

### ***Claim Rejections – 35 U.S.C. § 102***

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102

Art Unit: 2818

that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in–

(1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effect under this subsection of a national application published under section 122(b) only if the international application designating the United States was published under Article 21(2)(a) of such treaty in the English language; or

(2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that a patent shall not be deemed filed in the United States for the purposes of this subsection based on the filing of an international application filed under the treaty defined in section 351(a).

5. Claim 25 is rejected under 35 U.S.C 102(b) as being anticipated by Takemae et al. [U.S. Patent #6,215,714].

With respect to claim 25, Takemae et al. disclose, in figure 2, a method comprising: storing addresses of a portion of a plurality of memory cells as stored addresses [see *3<sup>rd</sup> paragraph of the “Summary of the Invention” section – cited paragraph indicate that address information of memory cells designated for refreshing is stored by the refresh address register*]; activating a refresh signal [see *5<sup>th</sup> paragraph of the “Description of the Preferred Embodiment” section – cited paragraph indicate that the activation of the refresh signal is done by way of the refresh control signal REF1*]; counting addresses of the plurality of memory cells to produce counted addresses [see *5<sup>th</sup> paragraph of the “Summary of the Invention” section*]; comparing the counted addresses with the stored addresses [see *5<sup>th</sup> paragraph of the “Summary of the Invention” section*]; and refreshing a memory cell within the portion of the plurality of memory cells when a counted address matches one of the stored addresses [see *the*

*16<sup>th</sup> paragraph of the “Description of the Preferred Embodiment” section – cited paragraph indicate that when the refresh address, generated by the refresh address counter, matches with the contents of the refresh address register, self-refresh mode will be activated].*

### ***Allowable Subject Matter***

6. Claims 4, 5, 7-24, and 32-40 are allowable over the prior art of record.
7. The following is an Examiner’s statement of reasons for the indication of allowable subject matter: the prior art of records does not show (in addition to the other elements in the claim) the following:
  - ❖ a device comprising: a plurality of compare units, each of the compare units connecting to one of a plurality of counter bit lines and to one of a plurality of register bit lines for comparing one of counter bits with one of register bits; and an output circuit connected to the plurality of compare units for activating a select signal based on a comparison result from each of the compare units for selectively refreshing the plurality of memory cells.
  - ❖ a method comprising comparing counted addresses, produced during a refresh mode, with addresses of a stored address range; and refreshing memory cells located at the counted addresses when the counted addresses match the addresses of the stored address range.
  - ❖ a method comprising comparing the number of count bits of each of the counts with a plurality of stored bits; and omitting a refresh of memory cells located at

Art Unit: 2818

addresses represented by the number of count bits when the number of count bits and the plurality of stored bits are mismatched.

***Conclusion***

8. When responding to the Office action, Applicants are advised to provide the Examiner with line and page numbers of the application and/or references cited to assist the Examiner in the prosecution of this case.

9. Any inquiry concerning this communication or earlier communications from the Examiner should be directed to Michael T. Tran whose telephone number is (571) 272-1795. The Examiner can normally be reached on Monday-Thursday from 7:30-6:00 P.M.

10. Any inquiry of a general nature or relating to the status of this application should be directed to the Group receptionist whose telephone number is (571) 272-1650.



Michael T. Tran  
Art Unit 2818  
March 9, 2004